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DEFENSE AGAINST CHEMICAL AND BIOLOGICAL WEAPONS

-HUNGARY-

by Konrad Erdos
and Istvan Hum

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FOREWORD

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- Hungary -

Following is the translation of an article by Konrad Erdos and Istvan Hum in Magyar Legoltalom (Hungarian Air-Defense) Vol III, No 1, Budapest, January 1961, pages 20-21.

In a series of articles we have described the tremendous destructive powers of the A-bomb and the H-bomb. They destroy property as well as humans; therefore, the imperialists find it much more practical to use chemical warfare (CW) and biological warfare (BW). Using such weapons they can annihilate populations without destroying property. They consider the fast-killing poison gases and biological weapons "humane" weapons. "If war has to be waged," said the Chief of the U.S. Army Chemical Weapons Research and Development Center, "it is much more humane to use fast-killing gases. We have to erase the negative public image of CW and BW." A high-ranking American Army officer declared: "I am an enthusiastic proponent of CW and BW. I think they are terrific tools. The dread of these weapons is the result of their conscious misrepresentation." This is a rare show of sincerity in the West indeed!

Let us examine this misrepresentation. Let the facts speak for themselves.

Description of Chemical Weapons

Chemistry is a constructive science. Yet it can be the most dangerous weapon of mass destruction in the hands of military adventurers.

According to historians, chemicals had already been used as weapons in a primitive manner in ancient times. In the Pelopenesian War (431-404 B.C.) the Spartans used sulfur and arsenic. Chemical weapons have undergone a tremendous development since then. The range of materials has considerably broadened.

CW materials are those poisonous substances that can harm a defenseless population to a great extent. They contaminate the ground, the air, foodstuff, animal fodder, water and household articles.

The enemy can produce the poison in solid, liquid or gaseous state. It can be directed against us by rockets, bombs, artillery projectiles or

by spraying the ground from airplanes.

The chemicals effect depends on many factors. The poisons that keep their harmful properties for a long time are called persistent CW materials. They are: mustard gas, lewisite, sarin, tabun, etc. The poisons which easily dissipate in the air -- such as phosgene, disphosgene, chloropicrin, hydrogen cyanide, etc. -- are the non-persistent CW materials.

The persistency of the CW materials does not depend only on their physical and chemical properties, but also on the properties of the ground, its buildings, the air temperature, the speed of the wind, precipitation, etc. In warm weather with strong wind they evaporate quickly. Rain and snow can break them down. The materials are classified according to their effects. They fall into four groups: irritants, suffocants, general poisons and blister agents. The symptoms can develop immediately or after a certain time lapse.

The IRRITANTS (chloracetophenone, adamsite, Clark I and II, etc.) have a strongly irritating effect on the eyes. When used in large amounts, they attack the membranes of the nose as well. The symptoms develop after a few minutes and last for a long time. They can contaminate the surface of food and drinking water lastingly.

The SUFFOCANTS (phosgene, diphosgene, chlorpicric acid, chlorine, etc.) attack the respiratory organs. They impair the lungs permanently, impede the air exchange and cause suffocation. The symptoms develop only after a long time (several hours.) They do not contaminate food and water lastingly and the poisons can be driven out by ventilation and cooking.

Of all the CW materials the GENERAL POISONS are the most dangerous. They affect the whole body. They are divided into nerve poisons and blood poisons. The blood poisons (cyan compounds, carbon monoxide) enter the bloodstream through the respiratory organs and block the blood's oxygen intake. The symptoms develop after a short time and can be fatal. The so-called nerve poisons (tabun, sarin, soman, DFP) and fluoro acetates are by far the most dangerous poisons known. The human body can not sense their presence, they are odorless and colorless. Even in very small amounts they can contract the pupils. These poisons affect the nerves and cause grave nerve paralysis. They are absorbed through the skin. They work very fast, which makes them very dangerous. They contaminate food and water supplies lastingly. (In Magyar Legoltalom, No 8, Robert Sebestyen deals with these CW materials in detail.)

The BLISTER AGENTS (mustard gas, nitrogen mustard gas, lewisite, etc.) draw blisters on the skin's surface. They are liquid. When used as a gas they attack the eyes, the respiratory and digestion organs, as well as the skin. They poison food.

There was a mass movement against the use of these dreadful mass-destructive weapons already at the turn of the century. The Hague Agreement of 1907 forbade CW. But the imperialist powers broke this agreement. The Germans used CW in World War I, using chlorine in 1915 (at Ypres) and mustard gas in 1917.

After World War I, an even more powerful international movement was started to abolish CW. As a result, at the Washington Disarmament Conference (1921-1922) the World Powers again agreed to refrain from using CW.

The League of Nations made several resolutions against chemical weapons but the imperialists broke these agreements, too. Fascist Italy used CW in the Italo-Ethiopian War (1935-1936) and imperialist Japan used chemicals in its aggression against China in 1937-1939.

In World War II no CW was waged, although the German Fascist were prepared to use chemicals. But since World War II the imperialist powers prepare a new war and work on the perfection of new poisonous warfare chemicals. Even Western dailies admit that Hitlerite military chemists work closely together with American experts on the preparation of new secret weapons of extraordinary mass destructive powers.

Biological Weapons

Biological weapons are those disease makers (microbes) or their poisonous products (toxins) which are used to produce diseases in humans, in animals and in plants. They are divided according to their biological properties into bacteria, rickettsia, viruses and fungi.

The enemy can use biological weapons in the following ways: in direct, open attack; in artillery projectiles aimed at us and filled with toxins; by using contaminated lice, insects and rodents thrown onto our territory in bags, sacks and boxes from airplanes; and by distributing contaminated foodstuff, feed and other objects.

The enemy can also direct a hidden attack and thus contaminate warehouses, reservoirs, buildings, animal feed, etc., with bacteria, toxins, or disease-carrying insects.

The enemy may use several biological weapons at the same time. They can combine biological attack with CW or with an A- and H-bomb attack. The biological attack is most likely to be directed against industrial railroad centers, factories, power plants, water plants, foodstuff and fodder warehouses, and open fields. The result of such an attack is an epidemic.

Ways and Means of Defense

There is a perfect defense against CW and BW. We can use it if we learn about the danger in time and act in an organized, calm manner, without undue hysteria. We can safely say that today we already have safe methods against CW and BW.

Shelters which can be hermetically sealed and have an air filter give perfect protection to a population not equipped with gas masks. Those cellars and emergency shelters, however, which protect against projectiles, bombs, and shrapnel only, do not offer defense against contaminated air. Hence, people using such shelters must use personal equipment against CW and BW.

Personal defensive equipment (gas masks, cover-alls, etc.) are designed to protect the respiratory organs, eyes, face, and hither to unprotected skin. They give temporary protection in contaminated air. In order to have an effective defense, everyone personally has to learn to use the personal defensive equipment available.

However, not everybody has a gas mask and other skin-protecting equipment. They are used primarily by reconnaissance and damage-estimating units in the contaminated areas. It is therefore everybody's concern to get easily produced and obtainable defensive equipment for himself.

When a gas mask is lacking, a home-made filter (see illustration [not reproduced here]) can be used. It should be added that this protects only against radioactive dust and bacteria and is inadequate against CW. Dust goggles can protect the eyes. As a last resort wet kerchiefs, towels, cotton, gauze can be applied against the mouth and the nose. In this case breathing is done only through the nose. The contaminated area must be left immediately.

Temporary protection of the body surface is achieved in several ways. One can use finely woven cover-alls, rubber-impregnated or plastic-covered coats and raincoats, winter outfits, rubber shoes, boots, gloves, etc.

Women are advised to wear pants. Small children should be wrapped in a woollen blanket when carried through or out of contaminated areas. Legs can be further protected by burlap, which should be wrapped around the legs and shoes in two or three layers, with newspapers placed between the layers.

We must emphasize that these protective devices are only temporary solutions, and after a while such costumes themselves become contaminated. Therefore, after leaving the contaminated area, the upper garments should be shed as soon as possible. The decontamination of people and objects is done by air-defense units, but in a wide-spread attack the population should help itself to a great extent.

We must know that in addition to the ways and means described thus far, the organized air-defense units also serve the defense of the population. Their task is to be prepared to decrease the dangers of chemical and biological attack.

A very important part of defense is prevention. Therefore, the state, factory, and municipal air-defense units carry out protective work even in the peacetime. Such actions are the establishment of various rules necessary to defend the population of large cities and the workers of industrial centers, training the various air-defense units in anticipation of CW and BW, preparations to prevent epidemics, stressing the importance of personal hygiene, elimination of potential disease-carrying insects and rodents, and inoculation of the population against epidemic diseases.

The air-defense units carry out chemical and biological reconnaissance. They find out what weapons have been used by the enemy. Knowing this, they organize the chemical and biological defense of the population.

Of course, it is much easier to carry out these tasks if the population knows the ways and means of biological attack and the methods of defense against them. This end is served by instructing the public.

The Soviet Union and every peace-loving country and people fight to the utmost to obtain a treaty to abolish mass-destruction weapons. This is shown in the new peace declaration, enunciated in Moscow, which analyzes the possibilities of preventing a new war in light of new historical developments. The declaration calls on the peoples of the world to fight for a

lasting peace.

These efforts, however, meet the resistance of the imperialist powers at the moment. Until the Western Powers stop the arms race, it is absolutely necessary to learn the methods of defense against mass-destruction weapons.